

United States Patent [19]

Roncero

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[54] METHODS AND APPARATUS FOR OPENING CLOSED CONTAINERS

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414/411

[58] Field of Search 53/381 R, 492; 414/411,
414/412, 414

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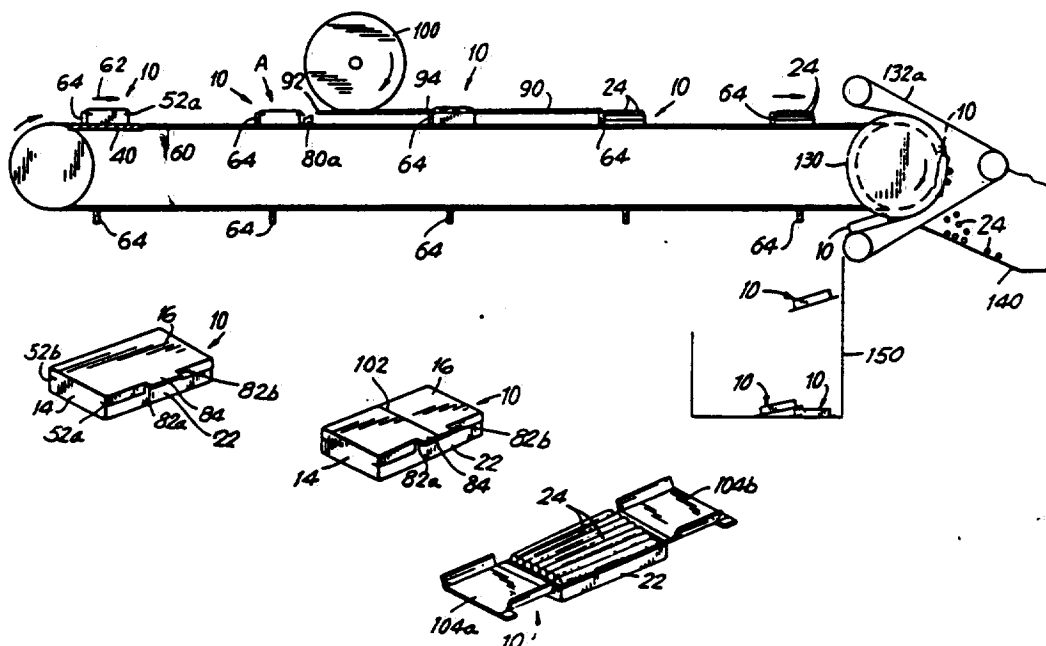
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[57] ABSTRACT

Methods and apparatus for opening containers such as cigarette packages without damaging the contents of the containers. If desired, the methods and apparatus may be extended to include emptying the containers after they have been opened.

23 Claims, 10 Drawing Sheets



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